12. The method of claim 1, wherein the step of transferring the process wafer to the heating chamber is effectuated by a means for remotely manipulating the process wafer under controlled ambient conditions.

13. The method of claim 1, wherein the acidic residue is selected from the group consisting of HBr , HCl and HF.

14. A heating chamber system for reducing acidic contamination on a process wafer following a plasma etching process comprising:

an ambient controlled heating chamber for accepting transfer of a process wafer under controlled ambient conditions;

a means for controlling an ambient within the heating chamber including a pressure;

a heat exchange surface disposed within the heating chamber for mounting the process wafer in heat exchange relationship;

a heat exchanger disposed externally to the heating chamber in fluid communication with the heat exchange surface;

a fluid communication flow path between the heat exchanger and the heat exchange surface;

a means for sensing a fluid flow disposed within the fluid communication flow path between the heat exchanger and the heat exchange surface;

a means for sensing a fluid temperature disposed within the fluid communication flow path between the heat exchanger and the heat exchange surface; and

a means for pumping a fluid flow disposed within the fluid communication flow path between the heat exchanger and the heat exchange surface.

15. The heating system of claim 14, further comprising a controller in electronic communication with at least the means for sensing a fluid flow.

16. The heating system of claim 14, further comprising a controller in electronic communication with at least the means for sensing a fluid temperature.

17. The heating system of claim 14, further comprising a controller in electronic communication with at least the means for pumping a fluid flow.

18. The heating system of claim 14, wherein the heating chamber is in ambient controlled communication with a plurality of chambers for carrying out plasma etching.

19. The heating system of claim 18, further comprising a means for remotely transferring a process wafer under controlled ambient conditions between the plurality of chambers including the heating chamber.

20. The heating system of claim 19, wherein the plurality of chambers for carrying out plasma etching includes an unloading chamber for accepting transfer under controlled ambient conditions of the process wafer following a treatment in the heating chamber.